

**Paraphrased Checklist Verification of Compliance with the
Utah Oil and Gas Industry Air Quality Requirements
for Sources without an Approval Order*
(PBR Checklist)**

APPLICABLE REGULATIONS: Utah Administrative Code (UAC) R307-500 Series for the Oil and Gas Industry; UAC R307-201, Emission Standards: General Emission Standards; and UAC R307-150, Emission Inventories

Y N/A N

General Provisions

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| R307-501-4(1) | VOC emissions are minimized as reasonably practicable by equipment design, maintenance and operation practices. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |
| R307-501-4(2) | Air pollution control equipment is sized appropriately, maintained and operated to minimize emissions. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |

Pneumatic Controllers

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| R307-502-4 | Continuous bleed natural gas-driven pneumatic controllers are in compliance with 40 CFR 60.5390 or 60.5390a as applicable. <ul style="list-style-type: none"> • Exemptions to tagging and record keeping requirements apply to controllers existing before 12/1/2015 (see R307-502-5). | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |
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Flares

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| R307-503-4 | Any enclosed flare has an operational auto-igniter, and any open flare that was installed on or after 1/1/2015 has an operational auto-igniter. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |
| R307-503-4 | Records are kept with the date of auto-igniter installation and the manufacturer specifications. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |

Tank Truck Loading

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| R307-504-4(1) | Truck loading is done by bottom filling or submerged fill pipe. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |
| 307 504-4(2) | A vapor capture line is used during truck loading if subject to storage vessel emissions controls of R307-506-4(2). <ul style="list-style-type: none"> • Effective 7/1/2019 for sources existing before 1/1/2018, and upon construction for new sources. | <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> <div style="border: 1px solid black; width: 30px; height: 30px; display: inline-block;"></div> |

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Y N/A N**Oil and Gas Industry Registration Requirement**

R307-505-3(1)-(2) The source is registered with the DAQ.

- Sources operating before 1/1/2018 are registered by 7/1/2018.
- Sources beginning operations 1/1/2018 and later are registered within 30 days.

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R307-505-3(3) Registration has been updated within 30 days of a company name change, removal or addition of control devices, or termination of operations.

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Storage Vessels

R307-506-4(1) Thief hatches are kept closed and latched.

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R307-506-4(2)(a) VOCs from storage vessels are recycled, recovered or controlled by a device that is compliant with R307-508.

- Exempt if <8000 bbls crude oil per year, <2000 bbls condensate, or if uncontrolled emissions are <4 tons VOC per year according to R307-506-4(2)(b).

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R307-506-4(2)(b)(i) VOC emissions calculations are based on site-specific sampling and a methodology in use by industry that is based on AP-42 Chapter 7.

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*If an exemption in R307-506-4(2) applies,
Skip to R307-507 below for sites with dehydrators, or
Skip to R307-510 below for all other sites.*

R307-506-4(3) VOC control devices required by R307-506-4(2) were operating upon startup and remain operating for a minimum of one year.

- Applies to vessels that began operations on or after 1/1/2018.

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R307-506-4(4) Emissions from emergency storage vessels are controlled according to R307-506-4(2), or are only used in emergencies, are emptied within 15 days of receiving fluids and are equipped with a liquid level gauge.

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R307-506-4(5) Monthly inspections are conducted according to 40 CFR 60.5416a(c) on the closed vent system, openings, thief hatches and bypass devices if emissions control is required, and defects are repaired within 15 days.

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		<u>Y</u>	<u>N/A</u>	<u>N</u>
R307-506-4(6)	Upon modification, the well site was re-evaluated against the thresholds of R307-506-4(2).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R307-506-4(7)	VOC control devices required by R307-506-4(2) have only been removed after a minimum of one year, and only if the rolling 12-month production is <8000 bbls crude oil per year, <2000 bbls condensate, or if actual uncontrolled emissions are <4 tons VOC per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R307-506-5	Records for each of the following are kept for three years: <ul style="list-style-type: none"> • Storage vessel vent system inspections (openings, thief hatches, pressure relief devices, bypasses, etc.), if required • Monthly crude oil throughput • Emission calculations, actuals and sampling data when used to justify an exemption to storage vessel rules • Emergency storage vessel usage (dates used, emptied, and volumes), if not controlled per R307-506-4(2) 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>Dehydrators:</u>				
R307-507-4(1)	VOCs from dehydrators are recycled, recovered or controlled, and any control device is compliant with R307-508. <ul style="list-style-type: none"> • Exempt if VOC emissions are <4 tpy. 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>If an exemption in R307-507-4(1) applies, Skip to R307-508 below if there are vessels subject to R307-506-4(2), or Skip to R307-510 below for all other sites.</i>				
R307-507-4(2)	Monthly inspections are conducted according to 40 CFR 60.5416a(c) on the closed vent system, openings, thief hatches and bypass devices if emissions control is required, and defects are repaired within 15 days.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R307-507-4(3)	Upon modification, the well site was re-evaluated against the thresholds of R307-507-4(1).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R307-507-4(4)	VOC control devices required by R307-507-4(1) have only been removed after a minimum of one year, and only if the rolling 12-month actual uncontrolled emissions are <4 tons VOC per year, individually or combined with emissions from storage vessels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R307-507-5(1)	Emission calculations are kept for all periods of operation if a control device is not installed at a source with a dehydrator.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Y N/A N

R307-507-5(2) Records of vent system inspections at sources with dehydrators are kept for three years if the inspections are required.

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VOC Control Devices

R307-508-3(1) The VOC control device(s) required by R307-506 or R307-507 has a control efficiency of 95% or greater, operates with no visible emissions and has an operational auto-igniter according to R307-503.

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R307-508-3(2) The VOC control device efficiency is determined by meeting the performance test methods and procedures of 40 CFR 60.5413

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R307-508-3(3) Monthly AVO inspections are conducted on VOC control devices and associated equipment, and corrective actions are taken within 15 days.

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R307-508-4 The following records are kept:

- VOC control device efficiency, for life of the equipment
- Manufacturer operating and maintenance instructions for VOC control devices, for life of the equipment
- AVO inspections of the VOC control device(s), associated equipment and any repairs, for 3 years

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Leak Detection and Repair

R307-509-4(1)(a) The source has an emissions monitoring plan.

- Exempt if controls are not required per R307-506 or R307-507

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R307-509-4(1)(b) The monitoring plan addresses difficult-to-monitor and unsafe-to-monitor components.

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R307-509-4(1)(c) Monitoring surveys are conducted if emissions control is required, to observe each fugitive emissions component for fugitive emissions.

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R307-509-4(1)(d) Initial monitoring surveys were within 60 days after startup for new sources, and by Jan 1, 2019 for sources existing prior to 1/1/2018. Subsequent surveys are semi-annual for regular components, annual for difficult-to-monitor components, and as required by the monitoring plan for unsafe-to-monitor components.

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R307-509-4(1)(e) Monitoring surveys are done with OGI equipment or by Method 21.

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Y N/A N

R307-509-4(1)(f) Fugitive leaks are repaired within 15 days unless infeasible, unsafe, etc., as stated in the rule, which require repair within 24 months per the rule.

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R307-509-4(1)(g) Resurvey of the repaired components is completed within 30 days.

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R307-509-5

The following records are kept:

- The emissions monitoring plan, for life of the site
- LDAR inspections, repairs and resurveys, for 3 years

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Natural Gas Engines

R307-510-4(1) Engines subject to R307-510 (does not have an AO, began operations, or installed or modified after 1/1/2016) meet the following limits:

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Maximum Engine hp	Emission Standards in (g/hp-hr)			
	NO _x	CO	VOC	HC+NO _x
>25 hp and < 100 hp	-	4.85	-	2.83
>100 hp	1.0	2.0	0.7	-

R307-510-4(2) The engine is certified or has an initial performance test per 40 CFR 60.4244.

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R307-510-4(3) Engine exhaust vents are vertical and unrestricted.
Stacks are 8' or greater if the site horsepower rating is 151 to 305, and 10' or greater if the site horse power rating is 306 or greater.

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R307-510-5 Engine certifications or initial performance tests are kept for the life of the engine at the source.

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Visible Emissions

R307-201-3 Visible emissions, except for unavoidable irregularities that do not exceed three minutes, are within the following opacity limits:

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Non-diesel engines installed on or before 4/25/1971 .. 40%
 Non-diesel engines installed after 4/25/1971 20%
 Gasoline engines 0%
 Diesel engines manufactured after 1/1/1973 20%
 Diesel engines manufactured before 1/1/1973 40%

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Y N/A N

Emission Inventory:

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| R307-150-9(1) | An emissions inventory has been submitted within the past three years, beginning with the 2017 inventory.
<ul style="list-style-type: none"> • Inventories are due on April 15 of the year following the calendar year for which an inventory is required. | <table border="1" style="border-collapse: collapse; width: 100px; height: 30px;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table> | | | |
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| R307-150-9(1)(a) | The emissions inventory is calculated using actual operating hours, product rates, and types of materials processed, stored, or combusted during the period, and includes total emissions of PM ₁₀ , PM _{2.5} , SO _x , NO _x , CO and VOC. | <table border="1" style="border-collapse: collapse; width: 100px; height: 30px;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table> | | | |
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| R307-150-9(1)(b) | The emissions inventory includes the type and efficiency of air pollution control equipment. | <table border="1" style="border-collapse: collapse; width: 100px; height: 30px;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table> | | | |
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